3. BORDER CROSSING FOR HEALTH CARE SERVICES

Patients' travel to obtain health care services is affected by commuting patterns as well as supply and demand factors. Generally, people tend to seek health care services in close proximity to where they live or work. For many residents, out-of-county or out-of-state providers are convenient. Those living near or working across a border are highly likely to utilize practitioners outside their jurisdiction of residence. For example, residents living in the northeastern and western regions of Maryland receive significant amounts of care in the areas of Dover, DE and Morgantown, WV, respectively. The use of out-of-state practitioners by Maryland residents is accentuated by the proximity of Washington, D.C. Many of the state's residents are employed in the District or, to a lesser extent, Virginia. Provider supply is a second factor. If the supply of a needed service is restricted or entirely absent near their residence or place of work, patients will travel beyond their usual commuting pattern to obtain the service, or may choose to forgo the service. Demand for services from a provider with a reputation for high quality care also influences travel for services. Practitioners affiliated with several well-known, tertiary care hospitals located in D.C. are within commuting distance of Maryland, which increases the likelihood that a significant proportion of health care services for Maryland residents will be obtained out-of-state. Indeed, previous analysis of the MCDB revealed that use of out-of-state practitioner services by Medicare beneficiaries is especially common for certain procedures related to heart disease.⁴

The analyses in this chapter examine Maryland residents' use of health care practitioners located outside the county of residence and use of hospitals outside the state. They expand on the border crossing study presented in a previous Commission report, which analyzed the percentage of practitioner services received out-of-state by service category and type of insurance coverage.⁴ The study of practitioner services presented in this chapter compares county and state border-crossing rates for urban and rural residents. Table 6 shows variations in the use of in-county, out-of-county and outof-state practitioner services for each urban and rural jurisdiction. For this analysis, the patient's county of residence is compared to the provider's county as reflected by the health care provider's address. ⁵ The MCDB was used to generate this table, with claims lacking information on patient or practitioner location excluded from the analysis. The inpatient study included in this chapter examines what proportion of residents' inpatient hospital discharges and reimbursements occur outside of Maryland. Tables 7 and 8 show the number of Medicare-covered hospital discharges and associated reimbursements for Maryland beneficiaries and Maryland-based hospitals in fiscal year 1997. These tables were created using data from the Medicare Provider Analysis and Review (MEDPAR) file, obtained from the Health Care Finance Administration (HCFA). Data limitations require the inpatient analysis to focus on the Medicare population, but a subset of the Medicare population that best reflects travel patterns for inpatient services in the privately insured is examined in Table 8.

⁴ Maryland Health Care Access and Cost Commission. *Practitioner Expenditures and Utilization: Experience from 1997*, March 1999, p. 38-43

⁵As explained in Chapter 1 provider addresses in the MCDB are not always a reliable indicator of where the service was actually performed. For reasons discussed in the previous chapter the county-based urban-rural comparison presented here may not fully illustrate the extent of the differences between the state's urban and rural populations.

BORDER CROSSING FOR PRACTITIONER SERVICES

Compared to the rural population, a higher proportion of urban residents receive their health care services within their county of residence. Table 6 examines whether, and how much, urban and rural residents travel to receive their health care services. On average, 54 percent of practitioner services received by urban residents are in-county compared to only 45 percent for rural residents. Compared to urban residents, rural residents are more likely to receive services in another county but are less likely to go out-of-state for practitioner services. About 45 percent of services received by rural residents are performed out-of-county, compared with only one-third of services received by urban residents.

Urban residents are generally more likely to receive service from out-of-state practitioners. Thirteen percent of services received by urban residents are performed out-of-state versus 10 percent for rural residents. However, there is considerable variation among both urban and rural counties in out-of-state utilization rates. The highest rates occur for residents of the border counties of Cecil, Garrett (rural), Prince George's, and Montgomery who receive more than one-fifth of their practitioner services out-of-state. Their high degree of border crossing is related to commuting-to-work patterns, since many of the residents of these counties are employed in neighboring jurisdictions, i.e., Delaware, West Virginia, and D.C.

In comparison to the urban population, rural residents: pay less for in-county services, about the same for out-of-county services, and more for out-of-state services. The mean payments for in-county, out-of-county, and out-of-state services do not vary as much as might be expected, however. In-county services for rural residents average a \$54 payment; urban residents' in-county services average a \$58 payment. Out-of-county mean service payments are similar: \$61 for urban residents, \$62 for rural residents. Rural residents pay more than urban residents when they go out-of-state for their services: \$77 versus \$72. For all but four jurisdictions, the out-of-state mean payment exceeds both of the in-state average payments (in-county and out-of-county).

Within the rural designation, some counties show extreme variation from the average. Caroline, Worcester and Somerset counties have the lowest proportion of services performed within county. Only 10 percent of services received by Caroline County residents were performed in-county, while Worcester and Somerset county residents received 22 and 24 percent, respectively, of their services in-county. Corresponding to their very low in-county service rates these counties also have

TABLE 6
DISTRIBUTION OF SERVICES AND MEAN PAYMENTS
IN AND OUT-OF-COUNTY 1

COUNTY OF	TOTAL									
PATIENT	PROCEDURE	% PROCEDURES			AVERAGE PAYMENT			PHYSICIANS/ 100,000 RESIDENTS *		
RESIDENCE	PERCENT							,		
		In-County	Out-County	Out-State	In-County	Out-	Out-State	All	Primary	Specialists
						County			Care	
Primarily Rural Counties										
Caroline	6.3%	10.0%	75.5%	14.4%	\$ 52	\$ 62	\$ 76	44.5	34.3	10.3
Dorchester	7.7	36.9	56.1	7.0	61	68	80	160.1	76.7	83.4
Garrett	6.3	34.6	42.4	23.0	47	57	62	95.1	57.7	37.4
Kent	6.8	41.3	44.5	14.2	49	59	79	174.7	74.1	100.6
Somerset	4.9	24.1	72.7	3.2	56	55	98	53.6	33	20.6
St. Mary's	22.7	46.6	41.0	12.3	50	65	80	89.5	36.3	53.2
Talbot	8.5	66.7	24.7	8.7	56	74	64	352.1	86.5	265.6
Wicomico	22.3	72.5	21.8	5.7	58	57	92	276.3	88.3	188
Worcester	14.4	22.3	69.7	N/A	49	60	79	87.5	53.5	34
Average Rural	100	45.3	44.7	10.0	54	62	77	157.4	60.5	96.9
Primarily Urban (Counties									
Allegany	1.9	85.5	8.2	6.4	52	75	91	235.5	64.4	171.1
Anne Arundel	9.1	51.9	38.1	10.0	56	67	70	167.1	59.3	107.8
Baltimore	18.2	50.5	43.1	6.4	56	58	51	214.9	63.2	151.7
Baltimore City	14.6	52.3	41.2	6.5	59	51	40	682.3	207.7	474.5
Calvert	1.2	37.4	49.6	13.0	55	69	83	119.8	47.9	71.9
Carroll	3.1	31.2	60.5	8.3	49	65	66	121.8	57.1	64.7
Cecil	1.2	44.6	28.2	27.2	46	63	83	89.3	41.5	47.8
Charles	2.1	39.0	43.5	17.5	55	64	81	88.9	38.7	50.2
Frederick	3.5	59.5	30.7	9.9	61	70	87	126	46.8	79.2
Harford	4.2	36.4	55.8	7.9	49	62	57	131	58.8	72.2
Howard	3.8	39.5	52.6	8.0	57	64	79	440.6	154.6	286
Montgomery	20.6	67.5	12.3	20.2	61	62	78	493	142.6	350.4
Prince George's	13.6	50.3	24.9	24.8	63	65	78	170.7	69.7	101.1
Queen Anne's	0.6	8.3	81.2	10.5	40	59	87	50	15.8	34.2
Washington	2.4	78.3	14.3	7.4	52	75	76	157.1	47.1	110
Average Urban	100	53.7	33.3	13.0	58	61	72	310	99.8	210.2

^{*} As of 1996. N/A indicates that the cell size would not produce statistically significant results.

among the lowest physician-to-population ratios in the state. Services for residents of these counties are most likely provided in neighboring counties where their residents work. For instance, Caroline comprises a small labor market area (LMA)⁶ with neighboring Talbot County. Because people generally seek health care services in close proximity to where they live or work, it is likely that Caroline residents often obtain care in Talbot, which has a large physician supply to meet the demand. Similarly, Somerset forms a LMA with Wicomico, which has one of the largest physician-to-population ratios among rural counties. Wicomico is also a likely source of care for Worcester residents. Residents in Garrett County are the most likely rural residents to travel out-of-state for their services (the county is on the West Virginia border), while residents in Somerset County who traveled out-of-state showed the highest payment per service for doing so (\$98).

Among urban counties, Allegany and Washington counties retain the largest shares of services for residents within the county: 86 percent and 78 percent, respectively. These high in-county service rates do not strictly correspond with physician-to-population ratios. Because people generally seek health care services near where they live or work, these high percentages likely reflect the high probability of residents working within the county in which they reside. Allegany is the primary source of employment for the Cumberland, MD/West Virginia Metropolitan Statistical Area (MSA),

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⁶ Labor market areas are defined by the federal Bureau of Labor Statistics, based on population and commuting patterns.

and Washington County forms its own Primary Metropolitan Statistical Area (PMSA), known as the Hagerstown, MD PMSA, as shown in Figure 2. It is interesting that both of these counties have the highest out-of-county average payment per services (both \$75) among urban counties, and Allegany also has the highest out-of-state average payment per service (\$91). Although Baltimore City and Howard and Montgomery counties have the highest physician supplies in the state, commuting-to-work patterns – which may generally be defined by a county' MSA – result in residents seeking care outside these counties. This is especially true for residents of Howard County, who work both in the Baltimore area (its PMSA) and the D.C. area. Queen Anne's County has the lowest proportion of incounty services of all Maryland counties: only 8 percent of services for residents were performed in that county. In addition to being part of the Baltimore PMSA, Queen Anne's County has one of the lowest physician-to-population ratios in the state. Cecil County is part of the Wilmington, Delaware PMSA, which explains why it has the highest proportion of services performed out-of-state of any county: 27 percent.

FIGURE 2
LIST OF MARYLAND COUNTIES INCLUDED IN METROPOLITAN STATISTICAL AREAS¹

METROPOLITAN STATISTICAL AREA	COUNTIES INCLUDED IN THE AREA
Baltimore PMSA	Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard, Queen Anne's
Cumberland, MD-WV MSA	Allegany
Hagerstown, MD PMSA	Washington
Washington, DC PMSA	Calvert, Charles, Frederick, Montgomery, Prince George's
Wilmington, DE PMSA	Cecil

¹As of June 1996. A Metropolitan Statistical Area (MSA) has a city or urbanized population of at least 50,000 with a total metropolitan population of at least 100,000; it includes the county containing the central city and any additional counties having close economic/social ties to the central city. A Primary Metropolitan Statistical Area (PMSA) is an MSA of 1 million persons or more. Metropolitan areas designated by the federal Office of Management and Budget.

STATE BORDER CROSSING FOR HOSPITAL INPATIENT SERVICES

During federal fiscal year 1997, nearly 21,000 inpatient stays for Maryland residents covered by Medicare occurred in hospitals outside of Maryland, as shown in the top half of Table 7. *This border crossing out of Maryland for inpatient services accounted for more than 10 percent of the discharges and nearly 15 percent of Medicare inpatient payments for Maryland Medicare beneficiaries, amounting to nearly \$236 million.* These out-of-state hospital percentages are smaller than the out-of-state percentages HCACC identified for practitioner services received by Maryland Medicare beneficiaries: 18 percent of services and payments. Hospitals located in D.C. account for the majority of out-of-state discharges and nearly two-thirds of the out-of-state reimbursements for Maryland Medicare beneficiaries. About one-fifth of the reimbursements for out-of-state discharges goes to hospitals in states that border Maryland, and the remaining 15 percent is received by hospitals in more distant jurisdictions.

Studies have demonstrated that patients who travel long distances incur higher hospital costs and use more resources than patients who receive health care locally. Accordingly, the mean reimbursement per discharge for the state's Medicare beneficiaries is 55 percent higher in the jurisdictions that border Maryland: \$11,900 versus \$7,700. The highest mean, \$13,100, occurs for discharges from D.C. hospitals and is 71 percent above the mean reimbursement for Maryland Medicare patients in Maryland hospitals. The relative increase in mean reimbursement for inpatient stays occurring in other locations outside of Maryland is smaller: 20 percent higher in the states that border Maryland and 13 percent higher in more distant jurisdictions such as North Carolina and Florida. The smaller reimbursement increase for discharges from hospitals in non-adjacent jurisdictions indicates that these inpatient stays are more similar to inpatient care received locally with regard to complexity of care and duration of stay. Although the Medicare data currently used by HCACC cannot be used to examine county of residence, it seems likely that inpatient migration

⁷ Welch HG, Larsen EB, Welch WP. Could Distance Be A Proxy For Severity Of Illness? A Comparison Of Local Hospital Costs In Distant And Local Patients. *Health Services Research* 28(4):442-458, 1993.

patterns are similar to those observed in the practitioner services data analysis presented earlier in this chapter, with the highest rates of out-of-state utilization occurring among residents of Cecil, Garrett, Montgomery and Prince George's counties.

TABLE 7
MEDICARE-COVERED HOSPITAL DISCHARGES FOR ALL BENEFICIARIES WHO ARE EITHER
MARYLAND RESIDENTS OR RECEIVED CARE IN MARYLAND HOSPITALS, FISCAL YEAR 1997

TOTAL MEDICARE DISCHARGES FOR BENEFICIARIES RESIDING IN MARYLAND								
Location of Hospital	Total Number of Discharges	Percent of Discharges	Total Reimbursement	Percent of Total Reimbursement	Mean Reimbursement Per Discharge			
Maryland	181,741	89.7	\$1,392,873,821	85.5	\$7,664			
Out-of-State	20,981	10.4	236,042,870	14.5 ¹	11,250			
D.C.	11,535	5.7	151,316,452	9.3	13,118			
Border States	5,329	2.6	48,979,569	3.0	9,191			
Non-Adjacent Jurisdictions	4,117	2.0	35,746,849	2.2	8,683			
All Discharges	202,722	100.0	1,628,916,691	100.0	8,035			
TOTAL MEDICARE DISCHARGES FROM HOSPITALS IN MARYLAND								
Residence of	Total Number of	Percent of	Total	Percent of Total	Mean Reimbursement			
Beneficiary	Discharges	Discharges	Reimbursement	Reimbursement	Per Discharge			
Maryland	181,741	87.3	\$1,392,873,821	90.5	\$7,664			
Out-of-State	26,420	12.7	146,111,007	9.5 ²	5,530			
D.C.	2,163	1.0	20,137,895	1.3	9,310			
Border States	9,912	4.8	81,996,945	5.3	8,273			
Non-Adjacent Jurisdictions	14,345	6.9	43,976,167	2.9	3,066			
All Discharges	208,161	100.0	1,538,984,828	100.0	7,393			

Outflow Rate. 2 Inflow Rate. Net Flow Ratio is equal to 1.058.

Notes Total reimbursement is the sum of Medicare reimbursement (PPS capital, acquisition charges, and amount reimbursed) and patient reimbursement (conisurance, inpatient deductible, and primary payer amount).

Because the Medicare file contains information on the inpatient hospital services received by all Medicare beneficiaries, it can measure use of Maryland hospitals by beneficiaries residing in states other than Maryland. As shown in the bottom half of Table 7, nearly 13 percent of Medicare-covered discharges from Maryland hospitals are associated with patients who reside outside Maryland, with the related reimbursements accounting for about 10 percent of Medicare inpatient payments to Maryland hospitals. About 46 percent of these non-resident patients live in bordering states or D.C., while the majority come from more distant jurisdictions.

Consistent with our observation that travel distance may be a proxy for severity of illness in inpatient care, the mean reimbursement per discharge for patients living in border jurisdictions is \$8,500, 10 percent higher than the average for Maryland residents. However, this is well below the \$11,900 mean reimbursement for Maryland residents who obtain inpatient care in jurisdictions bordering Maryland (discussed above). This seems to indicate that complexity of illness may be a more important factor in inducing Maryland beneficiaries to obtain inpatient care in neighboring jurisdictions than in explaining why residents of bordering jurisdictions cross into Maryland for inpatient care. Complexity of illness does not appear to be a major factor in why residents of more distant jurisdictions seek inpatient treatment in Maryland hospitals. The low average reimbursement of \$3,000 for these discharges is coupled with a mean duration of stay similar to that of state residents, indicating significantly less resource utilization by residents of non-adjacent jurisdictions. This care

may be either unanticipated emergency treatment sufficient to stabilize the patient for a return home or consultative services including evaluation and diagnostic testing provided on an inpatient basis.

The total inpatient reimbursement for Medicare beneficiaries residing in Maryland, \$1,629 million, exceeds the total Medicare inpatient reimbursements received by Maryland hospitals, \$1,539 million. The beneficiaries in Maryland require more inpatient dollars than the state's hospitals produce in treating Medicare patients. This makes Maryland a net importer of inpatient care –in terms of payments – for its Medicare population. To measure the extent to which a state is a net importer or exporter of Medicare services, HCFA created the net flow ratio (NFR), which here is determined by dividing Medicare expenditures for beneficiaries who reside in Maryland by the reimbursement paid to Maryland hospitals. States with NFRs greater than 1 are net importers of services, and Maryland's NFR for inpatient care is 1.058, with residents consuming 6 percent more inpatient dollars than are produced in the state. A NFR less than 1 indicates that a state is a net exporter, providing more services to out-of-state visitors than its own residents receive in other states. The number of Medicare inpatient stays in Maryland hospitals exceeds the total number of admissions for Maryland beneficiaries. However, Maryland beneficiaries in out-of-state hospitals average significantly higher levels of resource use – as reflected in mean reimbursements - than do non-residents who receive inpatient care in Maryland hospitals. It is this apparent difference in resource use, rather than the number of admissions, that makes Maryland a net importer of inpatient services for its Medicare population.

There is no inpatient file for the privately insured population that contains the complete set of discharges for all Maryland residents as well as all Maryland hospitals. Therefore, the Medicare data has been used to estimate the inflow and outflow payment percentages for the privately insured. This estimation process restricts the analysis to beneficiaries who are aged 65-69 without end stage renal disease (ESRD) to obtain a Medicare cohort most likely to have expenditure patterns similar to the privately insured. Patients with ESRD are eliminated because they are extremely high cost cases, and those under age 65 are dropped because they qualified for Medicare due to a permanent disability. Older Medicare beneficiaries are eliminated because: 1) their expenditure patterns are more likely to differ from those of the under-65 population, and 2) there is evidence that the elderly do not travel extensively, particularly for hospitalizations.

The analysis presented in Table 7 for Medicare beneficiaries of all ages is reproduced in Table 8 for the aged 65-69, non-ESRD beneficiary subset. Because our intent is to better understand the inpatient migration patterns of the privately insured, analysis of this data is restricted to inflow and outflow rates, the NFR, and the relative differences in mean reimbursement per discharge. As anticipated from prior research, this younger subset of Maryland beneficiaries has a somewhat greater tendency to obtain inpatient care outside of Maryland with nearly 12 percent of their discharges occurring outside the state. Compared to Medicare beneficiaries generally, the out-of-state inpatient stays for the younger subset are more likely to occur in D.C. hospitals and are less likely in hospitals located in non-adjacent jurisdictions. The increased use of hospitals outside Maryland is even more significant when reimbursements are considered. For younger beneficiaries, more than 17 percent of inpatient reimbursements go to non-Maryland hospitals compared to a 14 percent outflow rate in Table

⁸ Basu, J. "Border-Crossing Adjustment and Personal Health Care Spending by State," *Health Care Financing Review*, 18(1), pp. 215-236, 1996.

⁹ Hogan C. Patterns Of Travel For Rural Individuals Hospitalized In New York State: Relationships Between Distance, Destination And Casemix. *The Journal of Rural Health* 4(2):29-41, 1988.; Adams K, et al. Predicting Hospital Choice for Rural Medicare Spending by State: The Border-Crossing Adjustment. *Health Care Financing Review*, 17(2), pp. 219-241, 1995.

7. The proportion of inpatient reimbursements for the younger patients received by D.C. hospitals, 12 percent, is 31 percent greater than D.C.'s 9 percent share of reimbursements for Maryland's general Medicare population. Mean reimbursements for younger beneficiary discharges in D.C. and bordering states are 85 and 33 percent higher, respectively, than the average for these residents' in-state hospital stays. These are significantly higher than the corresponding 71 and 20 percent differences for all Maryland beneficiaries indicated in Table 7. These higher reimbursement differentials seem to indicate that *in a younger population, leaving Maryland to obtain inpatient care in bordering jurisdictions is even more likely to be driven by severity of illness* (as reflected in proportionately higher inpatient expenses) than in the general Medicare population.

TABLE 8
MEDICARE-COVERED HOSPITAL DISCHARGES FOR NON-ESRD BENEFICIARIES AGED 65-69 WHO ARE EITHER MARYLAND RESIDENTS OR RECEIVED CARE IN MARYLAND HOSPITALS, FISCAL YEAR 1997

TOTAL MEDICARE DISCHARGES FOR NON-ESRD BENEFICIARIES AGED 65-69 RESIDING IN MARYLAND							
Location of Hospital	Total Number of	Percent of	Total	Percent of Total	Mean Reimbursement		
Location of Hospital	Discharges	Discharges	Reimbursement	Reimbursement	Per Discharge		
Maryland	26,961	88.5	213,805,154	82.6	7,136		
Out-of-State	3,494	11.5	45,087,146	17.4 ¹	12,904		
D.C	835	2.7	31,476,434	3.4	14,736		
Border States	2,136	7.0	8,824,862	12.2	10,569		
Non-Adjacent Jurisdictions	523	1.7	4,785,850	1.9	9,151		
All Discharges	30,455	100.0	258,892,300	100.0	8,501		
TOTAL MEDICARE DISCHARGES FOR NON-ESRD PATIENTS AGED 65-69 FROM HOSPITALS IN MARYLAND							
Residence of	Total Number of	Percent of	Total	Percent of Total	Mean Reimbursement		
Beneficiary	Discharges	Discharges	Reimbursement	Reimbursement	Per Discharge		
Maryland	26,961	86.1	213,805,154	89.6	7,930		
Out-of-State	4,357	13.9	24,703,872	10.42	5,670		
D.C.	254	8.0	2,375,016	1.0	9,350		
Border States	2,267	5.9	14,754,471	6.2	8,036		
Non-Adjacent Jurisdictions	2,000	7.2	7,574,385	3.2	3,341		
All Discharges	31,318	100.0	238,509,026	100.0	7,616		

¹Outflow Rate. ²Inflow Rate. Net Flow Ratio is equal to 1.085.

Notes Total reimbursement is the sum of Medicare reimbursement (PPS capital, acquisition charges, and amount reimbursed) and patient reimbursement (conisurance, inpatient deductible, and primary payer amount).

The bottom half of Table 8 shows the residence distribution of younger Medicare beneficiaries in Maryland hospitals. In this population, non-residents comprise nearly 14 percent of the Maryland hospital discharges, which is an increase over the corresponding inflow rate in Table 7. A higher proportion of the younger patients reside in the states bordering Maryland than was found in the Medicare population. The mean reimbursement per discharge for patients living in jurisdictions that border Maryland is just 3 percent higher than the average for state residents, indicating these non-residents are most likely crossing into Maryland for reasons of convenience rather than severity of illness. As found in Table 7, the average reimbursement to Maryland hospitals for residents of non-adjacent jurisdictions is less than half the average for Maryland residents despite the similarity in the duration of stays. Regardless of the patient population that is examined, Maryland inpatient care delivered to residents of non-adjacent jurisdictions is much less resource-intensive than care that is delivered to state beneficiaries.

If the pattern of inpatient use by younger Medicare beneficiaries accurately reflects hospital utilization by Maryland's privately insured population, then *total inpatient reimbursements for the*

Maryland hospitals. The NFR for Table 8 is 1.085, indicating that privately insured residents probably consume about 8.5 percent more inpatient dollars than are received by Maryland hospitals. This is a larger gap than the 6 percent shortfall in the general Medicare population. As observed in the general Medicare population, the number of non-resident inpatient stays in Maryland hospitals exceeds the number of admissions for Maryland residents in out-of-state hospitals; however, Maryland beneficiaries in out-of-state hospitals average significantly higher levels of resource use than do non-residents who receive inpatient care in Maryland hospitals. It is this apparent difference in resource use, rather than the number of admissions, that makes Maryland a net importer of inpatient services.

HCACC conducted a study (not shown here) comparing the average Diagnostic Related Group (DRG) weights among the populations which did confirm that the differences in mean reimbursements tend to correspond to differences in resource intensity. It is important to note, however, that although we have presented mean reimbursements as synonymous with resource intensity, the geographic differences in reimbursements also include cost differences among the jurisdictions. These cost differences include differentials in input prices for labor and differences in underlying hospital costs such as teaching programs and hospital construction and renovation costs, reimbursed by Medicare. Therefore, although differences in mean payments reflect differences in resource utilization, other factors also account for some of the difference.